

U.S. Appl. No. 09/524,358
Reply to Final Office Action dated August 21, 2006

PATENT
450100-02402

IN THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application. An identifier indicating the status of each claim is provided.

Listing of Claims

1. (Currently Amended) ~~A~~ An audio/video data processing apparatus comprising:

processing means for compressing audio/video data in units of a compression block having a first data length;

encrypting means for encrypting the compressed data blocks into respective in units of an encryption block having a predetermined second data length,

wherein the first data length is a data length of an integral multiple of the second data length;

~~processing means for defining a plurality of processing blocks, each processing block having a data block length of a whole multiple of said predetermined length of said encryption block and for expanding compressed data blocks into one processing block,~~

~~wherein said encryption block is configured to not straddle any of said plurality of processing blocks;~~

storage means for storing the encrypted data; and

control means for writing the encrypted data in said storage means so that the said compressed data blocks positioned in the same encryption block are also positioned in the same processing-compression block, said control means reading the data from said storage means in units of the processing-compression block. [[,]]

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~~wherein processing load to access the data is thereby reduced when accessing encrypted audio data stored in said storage means.~~

2. (Currently Amended) The audio/video data processing apparatus as set forth in claim 1, wherein said control means inserts data into said processing-compression block to adjust the data length in the processing-compression block so that the length of said processing-compression block becomes a whole multiple of the ~~predetermined~~ second data length of said encryption block.

3. (Currently Amended) The audio/video data processing apparatus as set forth in claim 1, wherein said encrypting means performs encryption processing using the encryption block to be encrypted and a cipher text obtained from the encryption of the encryption block immediately prior to the encryption block to be encrypted.

4. (Currently Amended) The audio/video data processing apparatus as set forth in claim 3, wherein said control means manages the encrypted data stored in said storage means using a cluster containing one or more processing-compression blocks and values initially used when encrypting an encryption block in one of said processing-compression blocks.

5. (Currently Amended) The audio/video data processing apparatus as set forth in claim 4, wherein said control means stores said one or more processing-compression blocks at consecutive addresses of said storage means in the order of encryption, stores said one or more encryption blocks in said processing-compression blocks at consecutive addresses of

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said storage means in the order of encryption, and stores said initial values at an address immediately prior to the address of at which the first encryption block in the cluster is stored.

6. (Currently Amended) The audio/video data processing apparatus as set forth in claim 1, wherein said control means outputs said data read out in processing compression block units to said processing means.

7. (Canceled)

8. (Currently Amended) A data processing system for inputting and outputting data while performing mutual identification between a storage apparatus and a an audio/video data processing apparatus, said storage apparatus comprising:

first mutual identification processing means for performing processing for mutual identification with said data processing apparatus;

storage means for storing said data; and

first control means for allowing the input and output of data between said data processing apparatus and said storage means when said data processing apparatus is recognized to be a legitimate party by the processing for mutual identification;

said audio/video data processing apparatus comprising:

second mutual identification processing means for performing processing for mutual identification with said storage apparatus;

processing means for compressing audio/video data in units of a compression block having a first data length;

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encrypting means for encrypting ~~the compressed data blocks into respective in~~
units of an encryption block ~~of a predetermined~~ having a second data length,

wherein the first data length is a data length of an integral multiple of the second
data length; and

~~processing means for defining a plurality of processing blocks, each processing~~
~~block having a data block length that is a whole multiple of the predetermined data length of the~~
~~encryption block and for expanding compressed data blocks into one processing block,~~

~~wherein said encryption block is configured to not straddle any of said plurality of~~
~~processing blocks; and~~

second control means for performing at least one of write processing and read
processing when said data processing apparatus is recognized to be a legitimate party by the
processing for mutual identification, for writing the encrypted data in said storage means so that
~~said compressed~~ the data blocks positioned in one encryption block ~~are is~~ also positioned in the
same ~~processing~~ compression block during write processing,

and for reading the data from said storage means in units of ~~a processing~~ the
compression block during read processing. [[,]]

~~wherein processing load to access the data is thereby reduced when accessing~~
~~encrypted audio data stored in said storage means.~~

9. (Currently Amended) The data processing system as set forth in claim 8,
wherein said second control means inserts data into said ~~processing~~ compression block to adjust
the data length in the ~~processing~~ compression block so that the length of said ~~processing~~
compression block becomes a whole multiple of the ~~predetermined~~ second data length of said
encryption block.

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10. (Original) The data processing system as set forth in claim 8, wherein said encrypting means performs encryption processing using the encryption block to be encrypted and a cipher text obtained from the encryption of the encryption block immediately prior to the encryption block to be encrypted.

11. (Currently Amended) The data processing system as set forth in claim 10, wherein said second control means manages the encrypted data stored in said storage means using a cluster containing one or more ~~processing~~compression blocks and values initially used when encrypting an encryption block in one of said ~~processing~~compression blocks.

12. (Currently Amended) The data processing system as set forth in claim 11, wherein the second control means stores said one or more ~~processing~~compression blocks at consecutive addresses of said storage means in the order of encryption, stores said one or more encryption blocks in said ~~processing~~compression blocks at consecutive addresses of said storage means in the order of encryption, and stores said initial values at an address immediately prior to the address of at which the first encryption block in the cluster is stored.

13. (Currently Amended) ~~A~~An audio/video data processing method, comprising the steps of:
compressing audio/video data in units of a compression block having a first data length;
encrypting the compressed data blocks into respective in units of an encryption block having a predetermined second data length,

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wherein the first data length is a data length of an integral multiple of the second data length;
defining a plurality of processing blocks, each processing block having a data block length that is a whole multiple of the predetermined data length of the encryption block,
wherein said encryption block is configured to not straddle any of said plurality of processing blocks;
expanding compressed data blocks into one processing block;
writing the encrypted data to a storage means so that compressed the data blocks positioned in one encryption block are also positioned in the same processing compression block; and
reading the data from the storage means in units of the processing compression block. [[,]]
wherein processing load to access the data is thereby reduced when accessing encrypted audio data stored in said storage means.

14. (Currently Amended) The audio/video data processing method as set forth in claim 13, further comprising the step of inserting data into said processing compression block to adjust the data length in the processing compression block so that the length of said processing compression block becomes a whole multiple of the predetermined second data length of said encryption block.

15. (Currently Amended) The audio/video data processing method as set forth in claim 13, further comprising the step of using the encryption block to be encrypted and a

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cipher text obtained from the encryption of the encryption block immediately prior to the encryption block to be encrypted to perform encryption processing.

16. (Currently Amended) The audio/video data processing method as set forth in claim 15, further comprising the step of managing the encrypted data stored in said storage means using a cluster containing one or more processing-compression blocks and values initially used when encrypting an encryption block in one of said processing-compression blocks.

17. (Currently Amended) The audio/video data processing method as set forth in claim 16, further comprising the steps of :

storing said one or more processing-compression blocks at consecutive addresses of said storage means in the order of encryption;

storing said one or more encryption blocks in said processing-compression blocks at consecutive addresses of said storage means in the order of encryption; and

storing said initial values at an address immediately prior to the address of at which the first encryption block in the cluster is stored.

18. (Canceled)